Chapter 4

Diabetes Mellitus Prevalence

Diabetes mellitus is a disease characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. A confirmed fasting plasma glucose value of greater than or equal to 126-milligrams/deciliter indicates a diagnosis of diabetes. Severe long-term health complications that are associated with diabetes include limb amputation, renal failure, blindness, nerve damage, dental disease, and cardiovascular disease. Infants of diabetic mothers are more likely to die at birth.

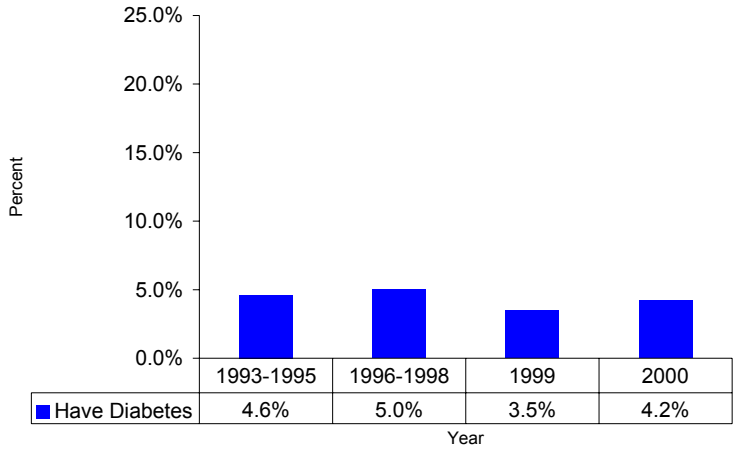
In the Unites States, diabetes affects fourteen million people and is the fourth leading cause of death. As of 1996 an estimated 66,812 Nebraskans had diabetes. In 1998 diabetes was the seventh leading underlying cause of death in the state of Nebraska. Early detection of diabetes and proper disease management can control blood sugar levels and reduce, delay, or prevent the severe complications associated with diabetes. To plan and implement public health programs for diabetes mellitus, public health officials need to be able to measure accurately the magnitude of disease burden of diabetes mellitus.

To determine the specific prevalence of self-reported diabetes in Lancaster County, BRFSS respondents were as asked if they had ever been told by a doctor that they had diabetes. Women who responded "yes" were then asked if they were told only while they were pregnant (gestational diabetes). Women with gestational diabetes were not included in the group defined as diabetic in the following analysis.

Prevalence and Trends

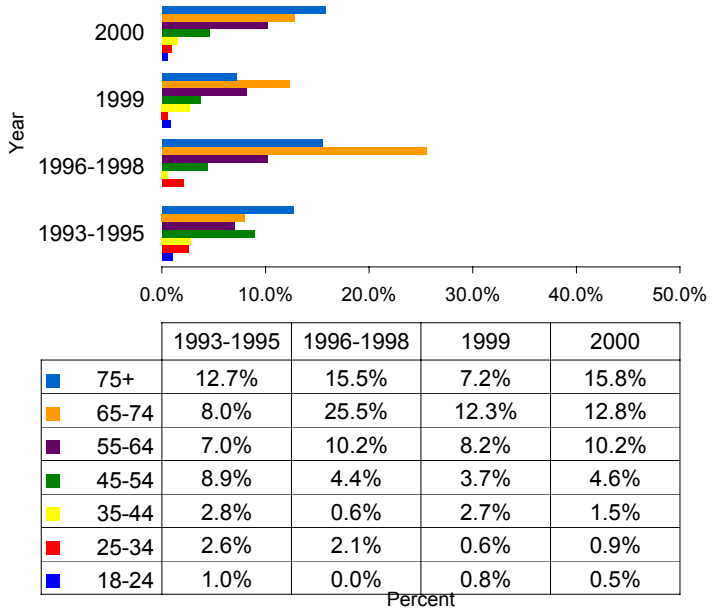
Estimates obtained from the Lancaster County BRFSS indicate that, in 2000, approximately 8,041 adults (4.20% of 191,463 adults of aged 18 and older) in Lancaster County have been told they had diabetes by a physician (95% CI, 3.2%-5.2%). Rates for diabetes were 4.6 percent in 1993-1996, 5 percent in 1996-1998, and 3.5 percent in 1999 (Fig.21).

Fig. 21: Trend in Diabetes



Prevalence of self-reported diabetes ranged from .05 percent among adults aged 18-24 to 12.8 percent among adults aged 65-74. Prevalence of diabetes among older age groups, regardless of survey years, persistently demonstrated higher rates than adults of younger age groups (Fig.22a).

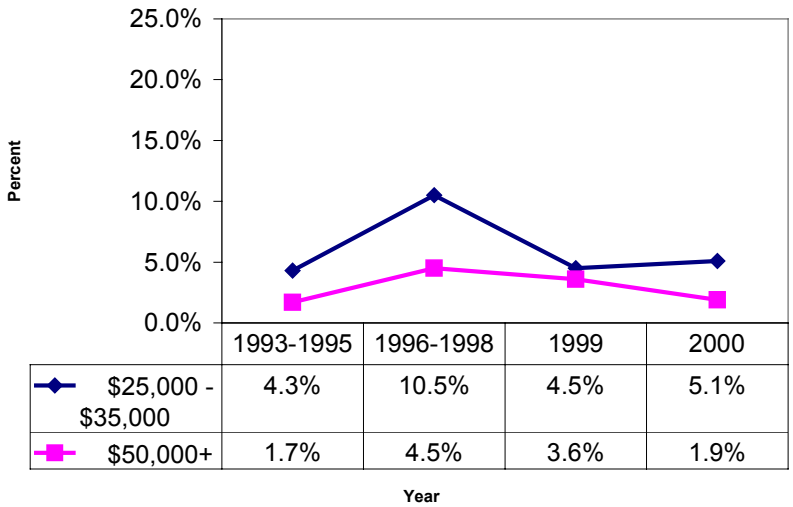
Fig.22a: Prevalence of Diabetes by Age



	1993-1995	1996-1998	1999	2000
75+	12.7%	15.5%	7.2%	15.8%
65-74	8.0%	25.5%	12.3%	12.8%
55-64	7.0%	10.2%	8.2%	10.2%
45-54	8.9%	4.4%	3.7%	4.6%
35-44	2.8%	0.6%	2.7%	1.5%
25-34	2.6%	2.1%	0.6%	0.9%
18-24	1.0%	0.0%	0.8%	0.5%

An examination of the income and prevalence of diabetes reveals that a person with higher income is less likely to have diabetes. Only 1.9 percent of respondents earning $50,000 or more were informed that they had diabetes compared to 5.1 percent respondents with a yearly income $25,000-$35,000. Similar differences in the prevalence between these two groups were noted in the preceding surveys (Fig.22b).

Fig. 22b: Prevalence of Diabetes by Two Income Groups ($25,000-$35,000 and $50,000+)



	1993-1995	1996-1998	1999	2000
$25,000 - $35,000	4.3%	10.5%	4.5%	5.1%
$50,000+	1.7%	4.5%	3.6%	1.9%

Although the prevalence of diabetes did not vary much by respondent's gender, more females (4.5%) than males (3.9%) reported having diabetes (Fig.22c). Diabetes by respondent's race and education level did not show any apparent trend (Table 7).

Fig.22c: Prevalence of Diabetes by Gender

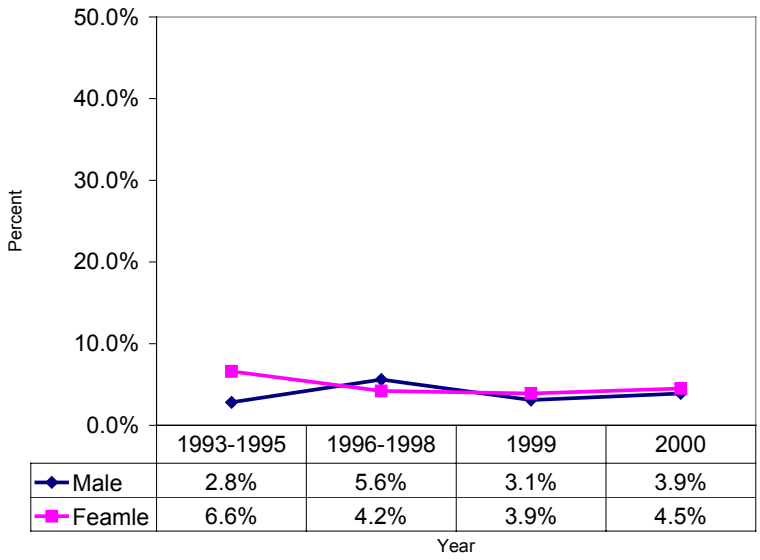


Table 7: Prevalence of Diabetes				
Year	**1993-1995**	**1996-1998**	**1999**	**2000**
Highest Grade Completed				
Some HS or Less	13.4%	11%	2.8%	3.8%
HS Grade or GED	8%	6.8%	4.4%	6.1%
Some College	2.9%	2.6%	3.1%	3%
College Grade	2.1%	4.9%	3.2%	3.7%
Annual Household Income				
Less than $10,000	10.7%	3.9%	1.8%	3.9%
$10,000 - $15,000	8.5%	4.2%	9%	7.5%
$15,000 - $20,000	6.6%	3.1%	4.1%	3.2%
$20,000 - $25,000	4.3%	4.7%	4.2%	6.2%
$25,000 - $35,000	4.3%	10.5%	4.5%	5.1%
$35,000 - $50,000	1.7%	3.6%	3.5%	5.5%
$50,000+	1.7%	4.5%	3.6%	1.9%
Race				
White	4.3%	5%	3.5%	4.3%
Non-White	11.2%	4.1%	2.7%	4.7%